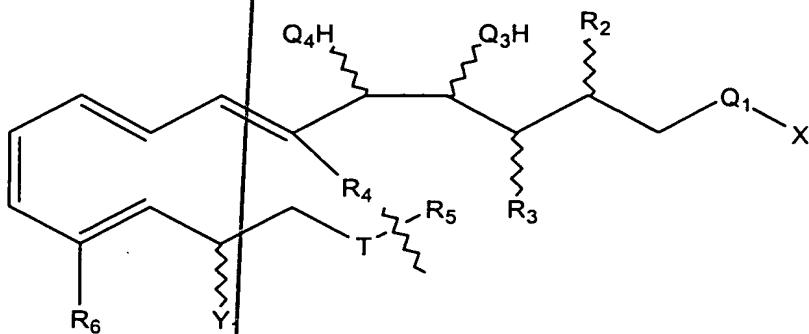


1. A method for modulating a disease or condition associated with phospholipase D (PLD) initiated polymorphonutrophil (PMN) inflammation in a subject, comprising

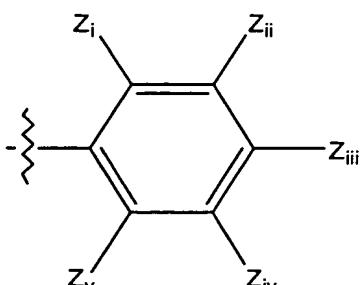
5 administering to the subject an effective anti-inflammatory amount of a lipoxin analog having the formula



10 wherein X is R₁, OR₁, or SR₁;

15 wherein R₁ is

- (i) a hydrogen atom;
- (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
- (iii) a cycloalkyl of 3 to 10 carbon atoms;
- (iv) an aralkyl of 7 to 12 carbon atoms;
- (v) phenyl;
- (vi) substituted phenyl



20 30 wherein Z_i, Z_{ii}, Z_{iii}, Z_{iv} and Z_v are each independently selected from -NO₂, -CN,

-C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

5 (vii) a detectable label molecule; or
(viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

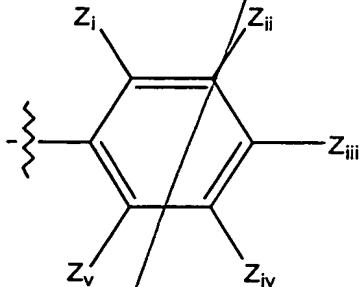
10 wherein Q₁ is (C=O), SO₂ or (CN), provided when Q₁ is CN, then X is absent; wherein Q₃ and Q₄ are each independently O, S or NH; wherein one of R₂ and R₃ is a hydrogen atom and the other is

15 (a) H;
(b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
(c) a cycloalkyl of 3 to 8 carbon atoms, inclusive;
(d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
(e) R_aQ₂R_b wherein Q₂ is -O- or -S-; wherein R_a is alkylene of 0 to 6 carbon atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

20 wherein R₄ is

25 (a) H;
(b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

30 wherein R₅ is



5

wherein Z_i , Z_{ii} , Z_{iii} , Z_{iv} and Z_v are each independently selected from $-\text{NO}_2$, $-\text{CN}$, $-\text{C}(=\text{O})-\text{R}_1$, $-\text{SO}_3\text{H}$, a hydrogen atom, halogen, methyl, $-\text{OR}_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

10

wherein Y_1 is (OH) , methyl, SH , an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

15

wherein R_6 is

20

- (a) H ;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

25

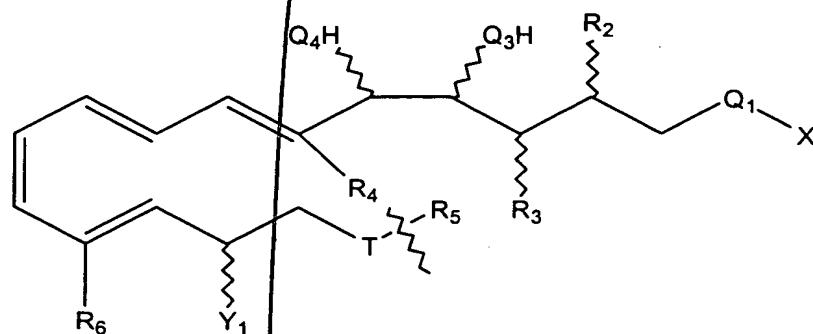
wherein T is O or S , and pharmaceutically acceptable salts thereof, such that a disease or condition associated with PLD initiated polymorphoneutrophil (PMN) inflammation in a subject is modulated.

30

2. The method of claim 1, wherein said method is performed *in vitro*.
3. The method of claim 1, wherein said method is performed *in vivo*.

4. A method for treating phospholipase D (PLD) initiated polymorphonuclear (PMN) inflammation in a subject, comprising administering to the subject an effective anti-inflammatory amount of a lipoxin analog having the formula

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wherein X is R₁, OR₁, or SR₁;

wherein R₁ is

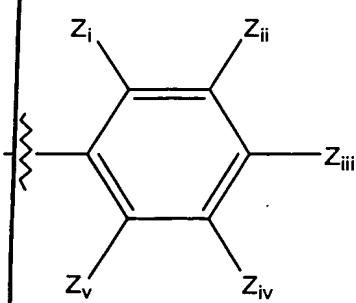
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- (i) a hydrogen atom;
- (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
- (iii) a cycloalkyl of 3 to 10 carbon atoms;
- (iv) an aralkyl of 7 to 12 carbon atoms;
- (v) phenyl;
- (vi) substituted phenyl

20

25

30



wherein Z₁, Z₂, Z₃, Z₄, and Z₅ are each independently selected from -NO₂, -CN, -C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to

8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

5 (vii) a detectable label molecule; or
(viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

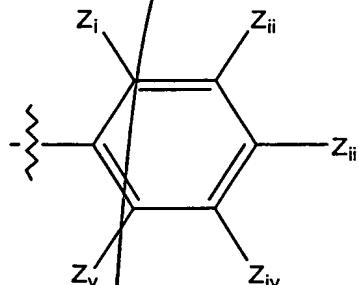
10 wherein Q_1 is $(C=O)$, SO_2 or (CN) , provided when Q_1 is CN , then X is absent; wherein Q_3 and Q_4 are each independently O , S or NH ; wherein one of R_2 and R_3 is a hydrogen atom and the other is

15 (a) H ;
(b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
(c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
(d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
(e) $R_a Q_2 R_b$ wherein Q_2 is $-O-$ or $-S-$; wherein R_a is alkylene of 0 to 6 carbon atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

20 wherein R_4 is

25 (a) H ;
(b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

30 wherein R_5 is



5

wherein Z_i, Z_{ii}, Z_{iii}, Z_{iv} and Z_v are each independently selected from -NO₂, -CN, -C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

10

wherein Y₁ is -OH, methyl, -SH, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where a+b=3, a=0 to 3, b=0 to 3 and Z is cyano, nitro or a halogen;

15

wherein R₆ is

- (a) H;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

20

wherein T is O or S, and pharmaceutically acceptable salts thereof, such that PLD initiated polymorphoneutrophil (PMN) inflammation is treated in a subject.

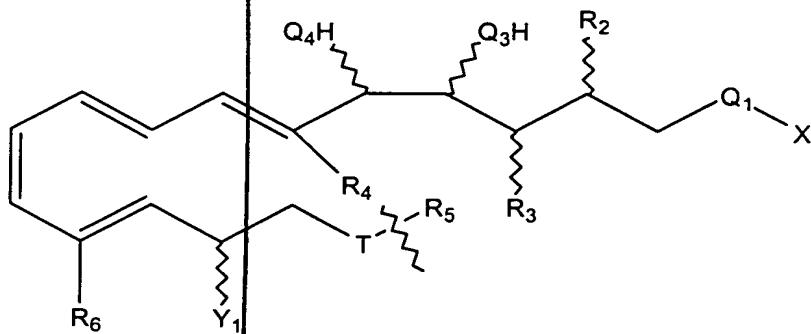
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5. The method of claim 1, wherein said method is performed *in vitro*.
6. The method of claim 1, wherein said method is performed *in vivo*.

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7. A method for modulating a disease or condition associated with phospholipase D (PLD) initiated superoxide generation or degranulation activity in a subject, comprising

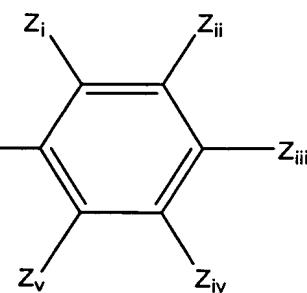
5 administering to the subject an effective anti-PLD amount of a lipoxin analog having the formula



10 wherein X is R₁, OR₁, or SR₁;

15 wherein R₁ is

- (i) a hydrogen atom;
- (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
- (iii) a cycloalkyl of 3 to 10 carbon atoms;
- (iv) an aralkyl of 7 to 12 carbon atoms;
- (v) phenyl;
- (vi) substituted phenyl



20 30 wherein Z₁, Z₂, Z₃, Z₄ and Z₅ are each independently selected from -NO₂, -CN,

-C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

5

- (vii) a detectable label molecule; or
- (viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

10

wherein Q₁ is (C=O), SO₂ or (CN), provided when Q₁ is CN, then X is absent; wherein Q₃ and Q₄ are each independently O, S or NH; wherein one of R₂ and R₃ is a hydrogen atom and the other is

15

- (a) H;
- (b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
- (c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
- (d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
- (e) R_aQ₂R_b wherein Q₂ is -O- or -S-; wherein R_a is alkylene of 0 to 6 carbon atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

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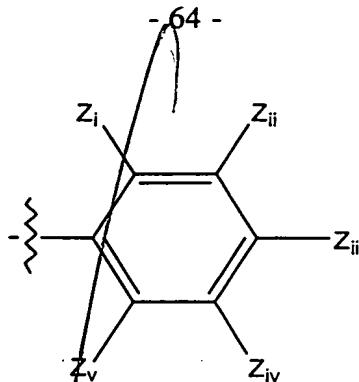
wherein R₄ is

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- (a) H;
- (b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

30

wherein R₅ is



wherein Z_1 , Z_2 , Z_3 , Z_4 and Z_5 are each independently selected from $-\text{NO}_2$, $-\text{CN}$, $-\text{C}(=\text{O})-\text{R}_1$, $-\text{SO}_3\text{H}$, a hydrogen atom, halogen, methyl, $-\text{OR}_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

wherein Y_1 is $-\text{OH}$, methyl, $-\text{SH}$, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

wherein R_6 is

- (a) H ;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

wherein T is O or S , and pharmaceutically acceptable salts thereof, such that a disease or condition associated with PLD initiated superoxide generation or degranulation activity in a subject is modulated.

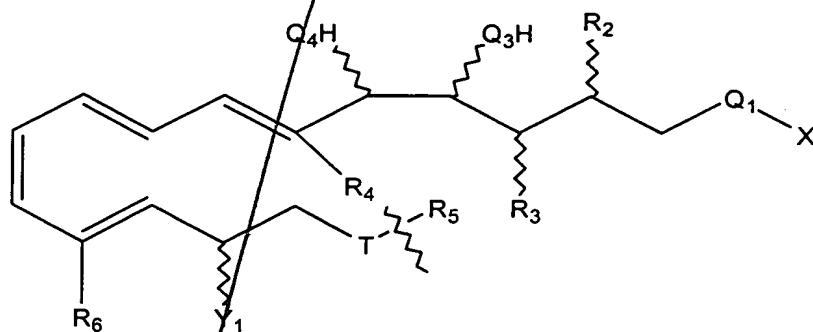
8. The method of claim 7, wherein said method is performed *in vitro*.

9. The method of claim 7, wherein said method is performed *in vivo*.

10. A method for treating phospholipase D (PLD) initiated superoxide generation or degranulation in a subject, comprising

administering to the subject an effective anti-PLD amount of a lipoxin analog having the formula

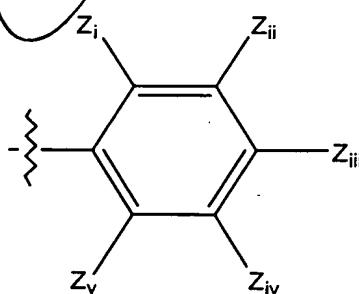
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wherein X is R₁, OR₁, or SR₁;

wherein R₁ is

- (i) a hydrogen atom;
- (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
- (iii) a cycloalkyl of 3 to 10 carbon atoms;
- (iv) an aralkyl of 7 to 12 carbon atoms;
- (v) phenyl;
- (vi) substituted phenyl



wherein Z_i, Z_{ii}, Z_{iii}, Z_{iv} and Z_v are each independently selected from -NO₂, -CN, -C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to

8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

5 (vii) a detectable label molecule; or
(viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

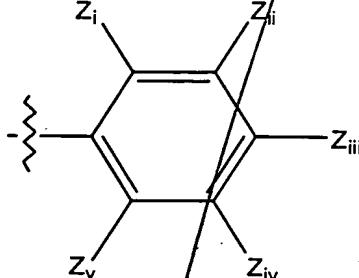
10 wherein Q_1 is $(C=O)$, SO_2 or (CN) , provided when Q_1 is CN , then X is absent; wherein Q_3 and Q_4 are each independently O , S or NH ; wherein one of R_2 and R_3 is a hydrogen atom and the other is

15 (a) H ;
(b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
(c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
(d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
(e) $R_aQ_2R_b$ wherein Q_2 is $-O-$ or $-S-$; wherein R_a is alkylene of 0 to 6
20 carbons atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

25 wherein R_4 is

(a) H ;
(b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

30 wherein R_5 is



5

wherein Z_i , Z_{ii} , Z_{iii} , Z_{iv} and Z_v are each independently selected from $-\text{NO}_2$, $-\text{CN}$, $-\text{C}(=\text{O})-\text{R}_1$, $-\text{SO}_3\text{H}$, a hydrogen atom, halogen, methyl, $-\text{OR}_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

wherein Y_1 is $-\text{OH}$, methyl, $-\text{SH}$, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

wherein R_6 is

- (a) H;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

wherein T is O or S, and pharmaceutically acceptable salts thereof, such that PLD initiated superoxide generation or granulation is treated in a subject.

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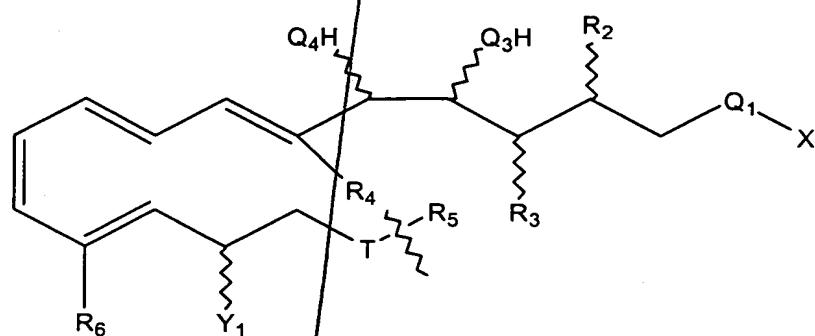
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11. The method of claim 10, wherein said method is performed *in vitro*.
12. The method of claim 10, wherein said method is performed *in vivo*.
13. A packaged pharmaceutical composition for treating a disease or condition associated with phospholipase D (PLD) initiated activity in a subject, comprising:

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a container holding a therapeutically effective amount of at least one lipoxin compound having the formula

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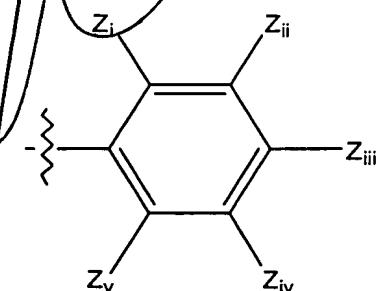
wherein X is R₁, OR₁, or SR₁

wherein R₁ is

15 (i) a hydrogen atom;
 (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
 (iii) a cycloalkyl of 3 to 10 carbon atoms;
 (iv) an aralkyl of 7 to 12 carbon atoms;
 (v) phenyl;
 (vi) substituted phenyl

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wherein Z₁, Z₂, Z₃, Z₄ and Z₅ are each independently selected from -NO₂, -CN, -C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and

hydroxyl;

5

- (vii) a detectable label molecule; or
- (viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

wherein Q_1 is $(C=O)$, SO_2 or (CN) , provided when Q_1 is CN , then X is absent;
wherein Q_3 and Q_4 are each independently O , S or NH ;
wherein one of R_2 and R_3 is a hydrogen atom and the other is

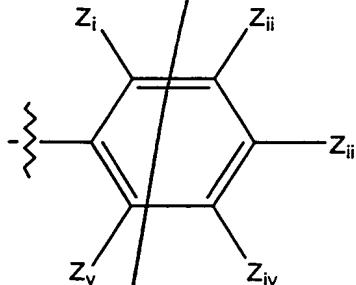
- (a) H ;
- (b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
- (c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
- (d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
- (e) $R_aQ_2R_b$ wherein Q_2 is $-O-$ or $-S-$; wherein R_a is alkylene of 0 to 6 carbons atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

20
wherein R_4 is

25

- (a) H ;
- (b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

5 wherein R_5 is



10 wherein Z_i , Z_{ii} , Z_{iii} , Z_{iv} and Z_v are each independently selected from $-NO_2$, $-CN$, $-C(=O)-R_1$, $-SO_3H$, a hydrogen atom, halogen, methyl, $-OR_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

15 wherein Y_1 is $-OH$, methyl, $-SH$, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

20 wherein R_6 is

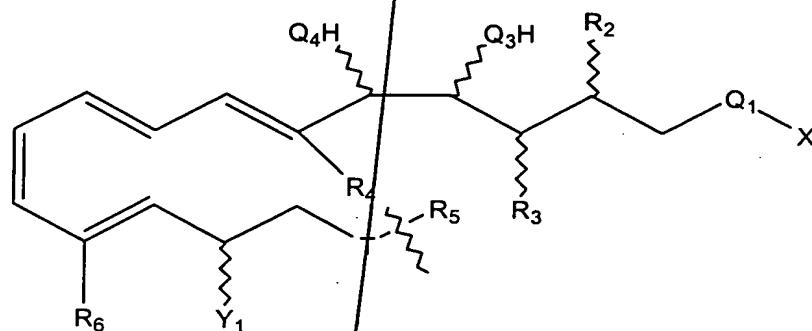
- (a) H ;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

25 wherein T is O or S, and pharmaceutically acceptable salts thereof; and instructions for using said lipoxin compound for treating a disease or condition associated with PLD initiated activity in the subject.

14. A packaged pharmaceutical composition for treating phospholipase D initiated activity in a subject, comprising:

a container holding a therapeutically effective amount of at least one lipoxin compound having the formula

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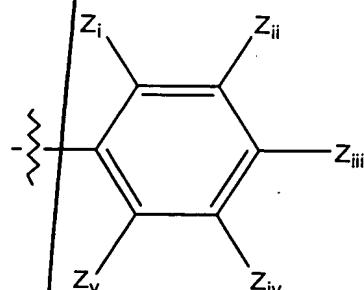
wherein X is R_1 , OR_1 , or SR_1 ;

wherein R_1 is

10 (i) a hydrogen atom;
 (ii) an alkyl of 1 to 8 carbons atoms, inclusive, which may be straight chain or branched;
 (iii) a cycloalkyl of 3 to 10 carbon atoms;
 (iv) an aralkyl of 7 to 12 carbon atoms;
 (v) phenyl;
 (vi) substituted phenyl

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wherein Z_1 , Z_2 , Z_3 , Z_4 and Z_5 are each independently selected from $-NO_2$, $-CN$, $-C(=O)-R_1$, $-SO_3H$, a hydrogen atom, halogen, methyl, $-OR_x$, wherein R_x is 1 to

8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

5 (vii) a detectable label molecule; or
(viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

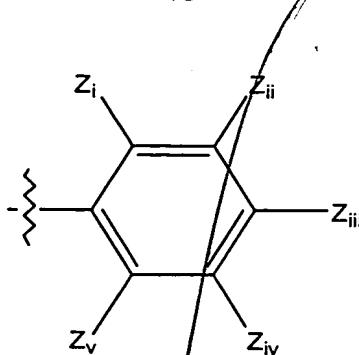
10 wherein Q_1 is $(C=O)$, SO_2 or (CN) , provided when Q_1 is CN , then X is absent; wherein Q_3 and Q_4 are each independently O , S or NH ; wherein one of R_2 and R_3 is a hydrogen atom and the other is

15 (a) H ;
(b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
(c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
(d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
(e) $R_a Q_2 R_b$ wherein Q_2 is $-O-$ or $-S-$; wherein R_a is alkylene of 0 to 6 carbon atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

20 wherein R_4 is

25 (a) H ;
(b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

30 wherein R_5 is



5

wherein Z_i , Z_{ii} , Z_{iii} , Z_{iv} and Z_v are each independently selected from $-NO_2$, $-CN$, $-C(=O)-R_1$, $-SO_3H$, a hydrogen atom, halogen, methyl, $-OR_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

wherein Y_1 is $-OH$, methyl, $-SH$, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

wherein R_6 is

- (a) H ;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

wherein T is O or S, and pharmaceutically acceptable salts thereof; and instructions for using said lipoxin compound for treating PLD initiated activity in the subject.

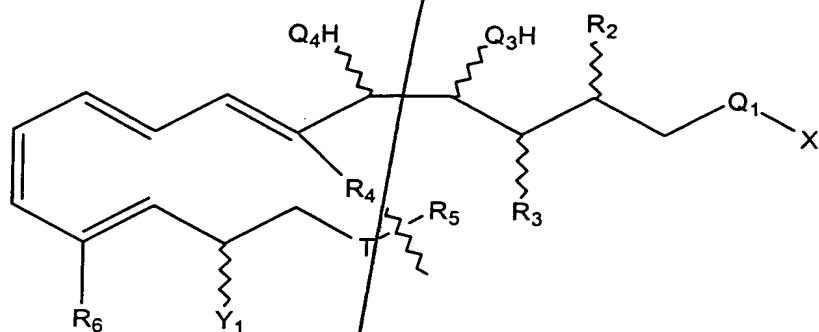
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15. A packaged pharmaceutical composition for treating a disease or condition associated with phospholipase D (PLD) initiated superoxide generation or degranulation activity in a subject, comprising:

a container holding a therapeutically effective amount of at least one lipoxin compound having the formula

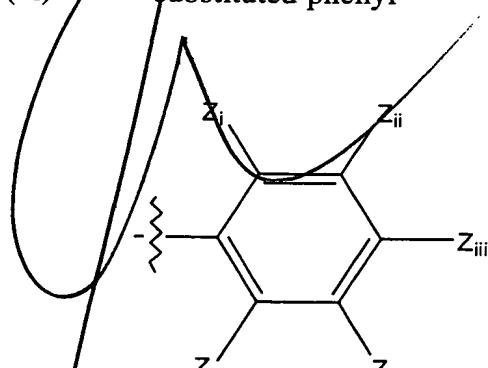
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wherein X is R₁, OR₁, or SR₁;

wherein R₁ is

- (i) a hydrogen atom;
- (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
- (iii) a cycloalkyl of 3 to 10 carbon atoms;
- (iv) an aralkyl of 7 to 12 carbon atoms;
- (v) phenyl;
- (vi) substituted phenyl



wherein Z_i, Z_{ii}, Z_{iii}, Z_{iv} and Z_v are each independently selected from -NO₂, -CN, -C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

- (vii) a detectable label molecule; or
- (viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

5 wherein Q_1 is $(C=O)$, SO_2 or (CN) , provided when Q_1 is CN , then X is absent; wherein Q_3 and Q_4 are each independently O , S or NH ; wherein one of R_2 and R_3 is a hydrogen atom and the other is

- (a) H ;
- (b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
- (c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
- (d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
- (e) $R_aQ_2R_b$ wherein Q_2 is $-O-$ or $-S-$; wherein R_a is alkylene of 0 to 6 carbon atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

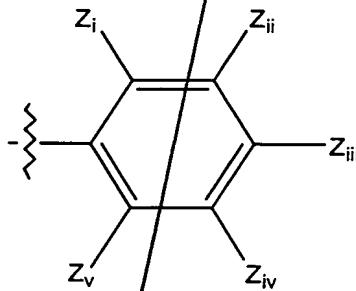
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wherein R_4 is

- (a) H ;
- (b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

25

5 wherein R_5 is



10 wherein Z_i , Z_{ii} , Z_{iii} , Z_{iv} and Z_v are each independently selected from $-NO_2$, $-CN$, $-C(=O)-R_1$, $-SO_3H$, a hydrogen atom, halogen, methyl, $-OR_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

15 wherein Y_1 is $-OH$, methyl, $-SH$, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

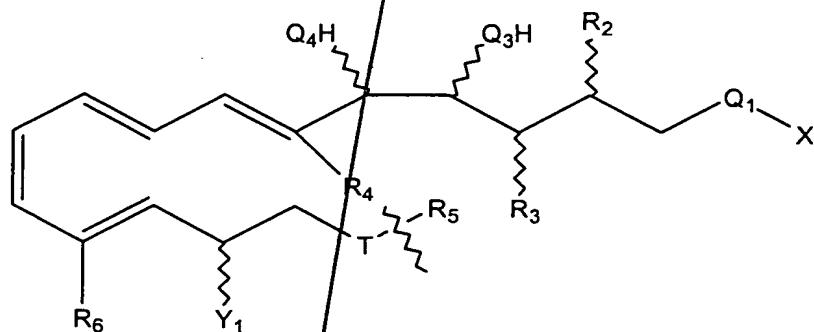
20 wherein R_6 is

- (a) H ;
- (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

25 wherein T is O or S , and pharmaceutically acceptable salts thereof; and instructions for using said lipoxin compound for treating a disease or condition associated with PLD initiated superoxide generation or degranulation activity in the subject.

16. A packaged pharmaceutical composition for treating phospholipase D (PLD) initiated superoxide generation or degranulation activity in a subject, comprising:
a container holding a therapeutically effective amount of at least one lipoxin compound having the formula

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wherein X is R₁, OR₁, or SR₁;

wherein R₁ is

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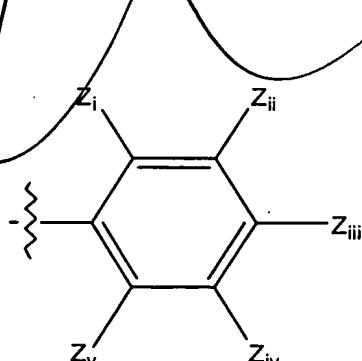
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- (i) a hydrogen atom;
- (ii) an alkyl of 1 to 8 carbon atoms, inclusive, which may be straight chain or branched;
- (iii) a cycloalkyl of 3 to 10 carbon atoms;
- (iv) an aralkyl of 7 to 12 carbon atoms;
- (v) phenyl;
- (vi) substituted phenyl



wherein Z_i, Z_{ii}, Z_{iii}, Z_{iv} and Z_v are each independently selected from -NO₂, -CN,

-C(=O)-R₁, -SO₃H, a hydrogen atom, halogen, methyl, -OR_x, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl;

5 (vii) a detectable label molecule; or
(viii) a straight or branched chain alkenyl of 2 to 8 carbon atoms, inclusive;

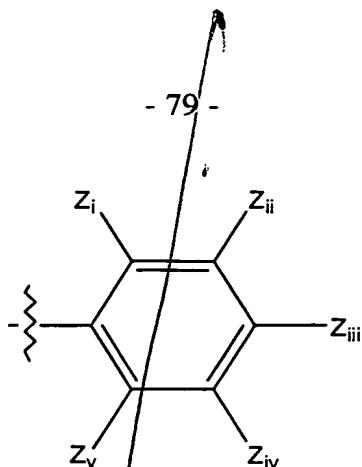
10 wherein Q₁ is (C=O), SO₂ or (CN), provided when Q₁ is CN, then X is absent; wherein Q₃ and Q₄ are each independently O, S or NH; wherein one of R₂ and R₃ is a hydrogen atom and the other is

20 (a) H;
(b) an alkyl of 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched;
(c) a cycloalkyl of 3 to 6 carbon atoms, inclusive;
(d) an alkenyl of 2 to 8 carbon atoms, inclusive, which may be straight chain or branched; or
(e) R_aQ₂R_b wherein Q₂ is -O- or -S-; wherein R_a is alkylene of 0 to 6 carbons atoms, inclusive, which may be straight chain or branched and wherein R_b is alkyl of 0 to 8 carbon atoms, inclusive, which may be straight chain or branched, provided when R_b is 0, then R_b is a hydrogen atom;

25 wherein R₄ is

(a) H;
(b) an alkyl of 1 to 6 carbon atoms, inclusive, which may be a straight chain or branched;

30 wherein R₅ is



wherein Z_i , Z_{ii} , Z_{iii} , Z_{iv} and Z_v are each independently selected from $-NO_2$, $-CN$, $-C(=O)-R_1$, $-SO_3H$, a hydrogen atom, halogen, methyl, $-OR_x$, wherein R_x is 1 to 8 carbon atoms, inclusive, which may be a straight chain or branched, and hydroxyl or a substituted or unsubstituted, branched or unbranched alkyl group;

wherein Y_1 is $-OH$, methyl, $-SH$, an alkyl of 2 to 4 carbon atoms, inclusive, straight chain or branched, an alkoxy of 1 to 4 carbon atoms, inclusive, or CH_aZ_b where $a+b=3$, $a=0$ to 3, $b=0$ to 3 and Z is cyano, nitro or a halogen;

wherein R_6 is

(a) H_3
 (b) an alkyl from 1 to 4 carbon atoms, inclusive, straight chain or branched;

wherein T is O or S, and pharmaceutically acceptable salts thereof; and instructions for using said lipoxin compound for treating PLD initiated superoxide generation or degranulation activity in the subject.

Abd Ab